

BRITISH COOPERATIVE CLINICAL GROUP*

AGE AND RACE GROUPS OF FEMALE CONTACTS

OF MALE PATIENTS WITH GONORRHOEA: 1963 STUDY†

Introduction

A study is made of the age and race groups of female contacts, irrespective of final diagnosis, of male patients with gonorrhoea attending the same clinics in England and Wales and in Scotland during 1963 according to the race of the referring male.

The male patients with gonorrhoea were divided into three groups, West Indians, other immigrants, and those born in the United Kingdom, and the same three groupings were used for the female contacts. The latter were also divided into a further three groups by age: those of 15 to 19 years, those of 20 to 24 years, and all other age groups. To facilitate the collection of data clinics were given advance notice of the projected study so that the race of the referring male could be entered on the female records whenever such a contact presented with a contact slip from a male patient. The data obtained has been related, where applicable, to that obtained in the same clinics in the earlier British Cooperative Clinical Group 1963 Gonorrhoea Study.

Scope of Study

In all, 131 clinics in 109 towns or cities participated in the study, giving data on 4,197 female contacts. Of these, 4,093 contacts attended 127 clinics situated in

103 towns or cities in England and Wales and 104 contacts in four clinics in six towns or cities in Scotland, but the major cities of Edinburgh and Glasgow were not included.

The overall coverage obtained is calculated on the basis of the proportion of the national total number of cases of gonorrhoea treated in the participating clinics and proved to be 84·8 per cent. for England and Wales (Table I).

Distribution of Female Contacts

The distribution of the contacts according to the populations of the towns and cities in which the clinics were situated is shown in Table II. Only 10·8 per cent. of the contacts in England and Wales were seen in 61 clinics in towns or cities with populations of less than 100,000, while 56·5 per cent. were seen in 29 clinics situated in five cities with populations exceeding 500,000.

Female Contacts Related to Males with Gonorrhoea Attending the Same Clinics

The ratio of the total numbers of male cases of gonorrhoea attending the clinics to the female

TABLE I
CASES OF GONORRHOEA TREATED IN CLINICS COVERED BY SURVEY

Area	Male	Female	Total
England and Wales			
Cases treated in clinics in study	23,569	6,987	30,556
National total	27,895	8,154	36,049
Per cent. coverage ..	84·5	85·7	84·8
Scotland	553	112	665

* Secretary, Dr R. R. Willcox, St. Mary's Hospital, London W.2.
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TABLE II
DISTRIBUTION OF FEMALE CONTACTS ACCORDING TO POPULATION

Area	Clinics	Towns or Cities	Total Population	No. of Contacts	Per cent.
England and Wales					
Under 50,000	27	27	732,953	73	1·8
50,000–100,000	34	36	2,489,235	368	9·0
100,000–500,000	37	35	6,724,413	1,337	32·7
500,000 plus	8	4	3,025,139	975	23·8
London ..	21	1	8,171,902	1,340	32·7
Total	127	103	21,143,642	4,093	100·0
Scotland	4	6	536,342	104	—
Total	131	109	21,679,984	4,197	—

contacts in the study according to the distribution of the clinics is shown in Table III.

TABLE III
FEMALE CONTACTS RELATED TO MALES ATTENDING THE CLINICS

Area	Males With Gonorrhoea	Female Contacts Seen	Per cent.	Ratio Female Contact: Male with Gonorrhoea
England and Wales				
Under 50,000	271	73	26.9	3.7:1
50,000-100,000	1,296	368	28.4	3.5:1
100,000-500,000	5,887	1,337	22.7	4.4:1
500,000 plus ..	5,459	975	17.9	5.6:1
London ..	10,656	1,340	12.6	8.0:1
Total	23,569	4,093	17.4	5.8:1
Scotland	553	104	18.8	5.3:1

The ratio in England and Wales as a whole was 5.8:1, being significantly lower (3.5 to 3.7:1) in the smaller towns and cities of less than 100,000 population and highest in the largest cities and London (8.0:1). Gonorrhoea in male homosexuals will have contributed in some measure to the higher ratio in the larger cities.

The investigation was based on the contacts obtained in the same clinic by contact slip, although in some clinics female contacts obtained by other means when the race of the referring male was known were also included. The figures obtained, therefore, if anything tend to overstate the efficacy of the contact slip. Not generally included were the female contacts attending, with contact slips, other clinics than that of the male partner, or patients who presented at the same or other clinics without revealing the details of source. In spite of these reservations the figures, however, clearly indicate the limitations of the contact-slip method in obtaining contacts.

The figures are also expressed as a percentage of the female contacts of the male cases. Overall in only 17.4 per cent. of males with gonorrhoea were female contacts reported as having attended the same clinic, the figure being higher (26.9 to 28.4 per cent.) in towns and cities of under 100,000 population, and lowest in London (12.6 per cent.).

These figures compare with those of Haworth and Nicol (1954), 18 per cent.; of Willcox (1962), 14 per cent.; and of Dunlop (1963), 19.7 per cent.—all in London.

Dunlop (1963) indicated that the use of the contact slip, while efficacious in obtaining secondary contacts, was only of very limited use in finding the source of gonococcal infection. No information is available in

this study as to how many of the contacts seen were secondary contacts but it is probable that they formed a high proportion. Nor is it known how many of the contacts were in fact shown to have gonorrhoea. In this respect it may be noted that in some American cities where numbers of female contacts of males with gonorrhoea have been given epidemiological treatment without laboratory tests for the gonococcus, the figure of 50 per cent. of contacts treated as suffering from gonorrhoea has been taken for statistical purposes. This is likely to be an underestimate.

Female Contacts in Relation to Known Female Gonorrhoea

The numbers of female contacts in the study are related to the total numbers of known female cases of gonorrhoea in the same clinics in Table IV.

TABLE IV
FEMALE CONTACTS IN RELATION TO KNOWN FEMALE GONORRHOEA

Area	Known Female Gonorrhoea	Female Contacts Seen	Per cent. Contacts of Known Gonorrhoea
England and Wales			
Under 50,000 ..	87	73	83.9
50,000-100,000 ..	443	368	83.1
100,000-500,000 ..	2,101	1,337	63.6
500,000 plus ..	1,634	975	59.7
London	2,722	1,340	49.2
Total	6,987	4,093	58.6
Scotland	112	104	92.5

The female contacts attending the same clinics comprised a significantly higher proportion of the known gonorrhoea in the smaller towns and cities and in Scotland than in London and the larger cities. The facts that the larger cities, particularly London, offer greater opportunities for female contacts given slips to attend alternative clinics, and that in the smaller towns and cities such contacts are more likely to be known or traceable, would contribute to these findings.

Race of Female Contacts

The racial groups of the 4,093 female contacts in England and Wales are shown in Table V.

495 (12.1 per cent.) of the female contacts were West Indian females. Of these no less than 94.7 per cent. were referred by West Indian males and only 13 (2.6 per cent.) each by other immigrants or by those born in the United Kingdom.

427 (10.4 per cent.) of the female contacts were other immigrant females. Of these 60.7 per cent.

were referred by other immigrant males, 25.5 per cent. by males born in the United Kingdom and 13.8 per cent. by West Indian males.

The bulk of the female contacts (3,171 or 77.5 per cent.) were born in the United Kingdom. Three-quarters of these (74.9 per cent.) were referred by United Kingdom-born males, 13.5 per cent. by West Indians, and 11.6 per cent. by other immigrant males.

The predominant association of like racial group of the referring male and sexual partner lends support to the belief that a considerable proportion of the females may have been secondary contacts rather than the primary source of infection.

The distribution of the female contacts by areas is shown in Table VI.

As indicated in the earlier British Cooperative Clinical Group studies, the figures show a higher

proportion of West Indians and other immigrant females in the larger cities, with a corresponding higher proportion of United Kingdom-born persons in the smaller towns and cities and in Scotland.

Age Group of All Female Contacts

The age distribution of the 4,093 female contacts is shown by areas in Table VII.

The overall percentage of teenagers of 15 to 19 years was 22.9 per cent. The proportion was lowest in London and the larger cities with a population exceeding 500,000 and highest in the smaller towns and cities and in Scotland. This distribution is the opposite of that of West Indian males and females with gonorrhoea (see earlier British Cooperative Clinical Group studies) and of that of West Indian female contacts (Table VI).

TABLE V
RACIAL GROUPS OF FEMALE CONTACTS

Race	Referred by							
	West Indian Males		Other Immigrant Males		UK-born Males		Totals	
	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.
West Indian Females	469	94.7	13	2.6	13	2.6	495	100.0
Other Immigrant Females	59	13.8	259	60.7	109	25.5	427	100.0
UK-born Females	427	13.5	368	11.6	2,376	74.9	3,171	100.0
Total	955	23.3	640	15.6	2,498	61.0	4,093	100.0

TABLE VI
RACIAL GROUPS OF ALL CONTACTS BY AREAS

Area	West Indians		Other Immigrants		UK-born		Total	
	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.
England and Wales								
Under 50,000	2	2.7	3	4.1	68	93.2	73	100.0
50,000-100,000	16	4.3	15	4.1	337	91.6	368	100.0
100,000-500,000	100	7.5	49	3.7	1,188	88.8	1,337	100.0
500,000 plus	97	9.9	103	10.6	775	79.5	975	100.0
London	280	20.9	257	19.2	803	59.9	1,340	100.0
Total	495	12.1	427	10.4	3,171	77.5	4,093	100.0
Scotland	1	1.0	1	1.0	102	98.0	104	100.0

TABLE VII
AGE GROUPS OF FEMALE CONTACTS BY AREAS

Area	15-19 Years		20-24 Years		Others		Total	
	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.
England and Wales								
Under 50,000	22	30.1	23	31.5	28	38.4	73	100.0
50,000-100,000	94	25.5	124	33.7	150	40.8	368	100.0
100,000-500,000	351	26.2	273	35.4	513	38.4	1,337	100.0
500,000 plus	182	18.7	360	36.9	433	44.4	975	100.0
London	288	21.5	509	38.0	543	40.5	1,340	100.0
Total	937	22.9	1,489	36.4	1,667	40.7	4,093	100.0
Scotland	38	36.5	28	26.9	38	36.5	104	100.0

The age groups of the female contacts are related to the racial group of the referring male in Table VIII.

Of the teenagers of 15 to 19 years, only 16·7 per cent. were referred by West Indians, 16·0 per cent. by other immigrants, and no less than 67·3 per cent. by UK-born males. The West Indian males referred a higher proportion of the older age groups (24·6 per cent.) than of teenagers (16·7 per cent.), while those born in the United Kingdom referred a lower proportion (60·6 per cent. as against 67·3 per cent.).

Female Contacts of West Indian Males

Racial Groups.—The racial groups of the female contacts referred by West Indian males and their distribution are shown in Table IX.

Of the 955 female contacts of West Indian males in England and Wales, 469 (49·1 per cent.) were West Indian females, 427 (44·7 per cent.) were born in the United Kingdom and only 59 (6·2 per cent.) were other immigrants. The proportion of those born in the United Kingdom was lowest in London.

Age Groups.—The age groups of the female contacts referred by West Indian males and their distribution are shown in Table X.

Of the 955 female contacts of West Indian males in England and Wales, only 16·3 per cent. were aged 15 to 19 years, the proportion being lowest in London (14 per cent.) where the greatest number of West Indian females were found and greatest in the smaller towns and cities where the numbers of West Indian females were few.

TABLE VIII
AGE GROUPS OF FEMALE CONTACTS ACCORDING TO RACE GROUP OF REFERRING MALE

Age Group of Females	Referred by							
	West Indian Males		Other Immigrant Males		UK-born Males		Total	
	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.
15–19 years	156	16·7	150	16·0	631	67·3	937	100·0
20–24 years	389	26·1	243	16·3	857	57·6	1,489	100·0
Others	410	24·6	247	14·8	1,010	60·6	1,667	100·0
Totals	955	23·3	640	15·6	2,498	61·0	4,093	100·0

TABLE IX
RACIAL GROUPS OF FEMALE CONTACTS OF WEST INDIAN MALES BY AREA

Area	West Indians		Other Immigrants		UK-born		Total	
	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.
England and Wales								
Under 50,000 ..	1	50·0	—	—	1	50·0	2	100·0
50,000–100,000 ..	16	64·0	1	4·0	8	32·0	25	100·0
100,000–500,000 ..	99	45·0	7	3·2	114	51·8	220	200·0
500,000 plus ..	89	33·4	14	5·3	163	61·3	266	100·0
London	264	59·7	37	8·4	141	31·9	442	100·0
Total	469	49·1	59	6·2	427	44·7	955	100·0
Scotland	—	—	1	20·0	4	80·0	5	100·0

TABLE X
AGE GROUPS OF FEMALE CONTACTS OF WEST INDIAN MALES BY AREA

Area	15–19 years		20–24 years		Others		Total	
	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.
England and Wales								
Under 50,000 ..	—	—	2	100·0	—	—	2	100·0
50,000–100,000 ..	6	24·0	11	44·0	8	32·0	25	100·0
100,000–500,000 ..	46	20·9	91	41·4	83	37·7	220	100·0
500,000 plus ..	42	15·8	107	40·2	117	44·0	266	100·0
London	62	14·0	178	40·3	202	45·7	442	100·0
Total	156	16·3	389	40·7	410	42·9	955	100·0
Scotland	4	80·0	—	—	1	20·0	5	100·0

Female Contacts of Other Immigrant Males

Racial Groups.—The racial groups of female contacts referred by other immigrant males and their distribution are shown in Table XI.

Of the 640 female contacts of other immigrant males seen in England and Wales 40·5 per cent. were also other immigrants, 57·5 per cent. were born in the United Kingdom, and only 13 (2·0 per cent.) were West Indian females.

Age Groups.—The age groups of the female contacts referred by other immigrant males and their distribution are shown in Table XII.

Of the 640 female contacts of other immigrant males seen in England and Wales 23·4 per cent. were

aged 15 to 19 years. In London the proportion was 24·3 per cent.

Female Contacts of United Kingdom-born Males

Racial Groups.—The racial groups of the contacts referred by United Kingdom-born males are shown in Table XIII.

The vast majority of the 2,498 female contacts of males born in the United Kingdom in England and Wales were also born in the United Kingdom (95·1 per cent.), the proportion being lowest in London (87·0 per cent.). Only 109 (4·4 per cent.) were other immigrants, and a mere 13 (0·5 per cent.) were West Indian females.

TABLE XI
RACIAL GROUPS OF FEMALE CONTACTS OF OTHER IMMIGRANT MALES BY AREA

Area	West Indians		Other Immigrants		UK-born		Total	
	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.
England and Wales								
Under 50,000 ..	1	20·0	2	40·0	2	40·0	5	100·0
50,000–100,000 ..	—	—	14	29·8	33	70·2	47	100·0
100,000–500,000 ..	—	—	26	26·8	71	73·2	97	100·0
500,000 plus ..	3	1·6	66	37·1	109	61·2	178	100·0
London ..	9	2·9	115	48·2	153	48·9	313	100·0
Total	13	2·0	259	40·5	368	57·5	640	100·0
Scotland	—	—	—	—	7	100·0	7	100·0

TABLE XII
AGE GROUPS OF FEMALE CONTACTS OF OTHER IMMIGRANT MALES BY AREA

Area	15–19 Years		20–24 Years		Other		Total	
	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.
England and Wales								
Under 50,000 ..	—	—	1	20·0	4	80·0	5	100·0
50,000–100,000 ..	18	38·3	18	38·3	11	23·4	47	100·0
100,000–500,000 ..	23	23·7	37	38·1	37	38·1	97	100·0
500,000 plus ..	33	18·5	62	34·8	83	46·6	178	100·0
London ..	76	24·3	125	39·9	112	35·8	313	100·0
Total	150	23·4	243	38·0	247	38·6	640	100·0
Scotland	5	71·4	2	28·6	—	—	7	100·0

TABLE XIII
RACIAL GROUPS OF FEMALE CONTACTS OF UK-BORN MALES BY AREA

Area	West Indians		Other Immigrants		UK-born		Total	
	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.
England and Wales								
Under 50,000 ..	—	—	1	1·5	65	98·5	66	100·0
50,000–100,000 ..	—	—	—	—	296	100·0	296	100·0
100,000–500,000 ..	1	0·1	16	1·6	1,003	98·3	1,020	100·0
500,000 plus ..	5	0·9	23	4·3	503	94·7	531	100·0
London ..	7	1·2	69	11·8	509	87·0	585	100·0
Total	13	0·5	109	4·4	2,376	95·1	2,498	100·0
Scotland	1	1·1	—	—	91	98·9	92	100·0

Age Groups.—The age groups of the 2,498 female contacts referred by United Kingdom-born males and their distribution are shown in Table XIV.

Of the 2,498 female contacts of males born in the United Kingdom in England and Wales, 25·3 per cent. were aged 15 to 19 years.

Comparative Data

Like with Like.—The previously presented racial groups of the female contacts related to those of the referring male are summarized in Table XV.

Contacts of Males.—The similarity or difference in the country of origin of the female contact in the case of the referring males with gonorrhoea is indicated in Table XVI.

In 75·8 per cent. of cases the racial group of the female contact was the same as that of the referring male. The percentage was highest with UK-born

persons (95·1 per cent.) and lowest in respect of other immigrants (40·5 per cent.) while the figure for West Indians was 49·1 per cent. These figures, while perhaps indicating some conservatism or racial discrimination in those born in the United Kingdom, are doubtless to a considerable extent influenced by the greater probability of there being secondary contacts to refer to the clinics in the same groups.

Contacts of Females.—The similarity of the country of origin of the referring male to that of the female consorts is shown in Table XVII.

In females it was the West Indians who showed the highest proportion having been referred by their own racial group (94·7 per cent.); in only 5·3 per cent. were their referring males of other racial groups. Both West Indian females and other immigrant females showed an appreciably greater proportion of attachments with men of their own race group than

TABLE XIV
AGE GROUPS OF FEMALE CONTACTS OF UK-BORN MALES BY AREA

Area	15-19 Years		20-24 Years		Others		Total	
	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.
England and Wales								
Under 50,000 ..	22	33·3	20	30·3	24	36·4	66	100·0
50,000-100,000 ..	70	23·6	95	32·1	131	44·3	296	100·0
100,000-500,000 ..	282	27·7	345	33·8	393	38·5	1,020	100·0
500,000 plus ..	107	20·1	191	36·0	233	43·9	531	100·0
London	150	25·6	206	35·2	229	39·1	585	100·0
Total	631	25·3	857	34·3	1,010	40·4	2,498	100·0
Scotland	29	31·5	26	28·3	37	40·2	92	100·0

TABLE XV
RACIAL GROUPS OF FEMALE CONTACTS RELATED TO THOSE OF REFERRING MALE
(England and Wales only)

Referred by	West Indian Females		Other Immigrant Females		UK-born Females		Total	
	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.
West Indian Males ..	469	49·1	59	6·2	427	44·7	955	100·0
Other Immigrant Males ..	13	2·0	259	40·5	368	57·5	640	100·0
UK-born Males ..	13	0·5	109	4·4	2,376	95·1	2,498	100·0
Total	495	12·1	427	10·4	3,171	77·5	4,093	100·0

TABLE XVI
SIMILARITY OF RACIAL GROUP OF FEMALE CONTACTS
AND REFERRING MALES
(England and Wales only)

Referred by	Total Females	Like Female	Unlike Female	Per cent. Like Female
West Indian Male	955	469	486	49·1
Other Immigrant Male ..	640	259	381	40·5
UK-born Male ..	2,498	2,376	122	95·1
Total	4,093	3,104	989	75·8

TABLE XVII
SIMILARITY OF RACIAL GROUP OF REFERRING MALE
AND FEMALE CONTACTS
(England and Wales only)

Referred by	Total Males	Like Male	Unlike Male	Per cent. Like
West Indian Female ..	495	569	26	94·7
Other Immigrant Female ..	427	259	168	60·7
UK-born Female ..	3,171	2,376	795	74·9
Total	4,093	3,104	989	75·8

did the males from these two groups (Table XVII), although the figure for other immigrant females (60.7 per cent.) was the lowest and below average. Whereas 95.1 per cent. of UK-born males had referred females born in the United Kingdom and only 4.9 per cent. females of other groups, no less than 35.1 per cent. of the UK-born females had been referred to the clinics by non-UK-born persons.

Comparison of Age Groups of Contacts According to Race Group of Referring Males.—The percentages of the different age groups of the female contacts according to the race group of the referring males are shown in Table XVIII.

TABLE XVIII
COMPARISON OF AGE GROUPS OF CONTACTS
(England and Wales)

Age Group of Females	Referred by			Total
	West Indians	Other Immigrants	UK-born	
15-19 years No. Per cent.	156 16.3	150 23.4	631 25.3	937 22.9
20-24 years No. Per cent.	389 40.7	243 38.0	857 34.3	1,489 36.4
Others No. Per cent.	410 42.9	247 38.6	1,010 40.4	1,667 40.7
Total No. Per cent.	955 100.0	640 100.0	2,498 100.0	4,083 100.0

Of the female contacts of those born in the United Kingdom 25.3 per cent. were aged 15 to 19 years and 74.7 per cent. were of other age groups. Of those of other immigrants 23.4 per cent. were aged 15 to 19 years and 76.6 per cent. were of other age groups. Of the West Indians, on the other hand, only 16.3 per cent. of the female contacts were aged 15 to 19 years, and no less than 83.7 per cent. were of other age groups.

The data clearly show that there was an appreciably lower proportion of teenagers in the contacts of West Indian males with gonorrhoea than in the contacts of United Kingdom-born males, the female contacts of whom showed the highest proportion of teenagers.

Within the limitations of the data, the most important unknown factor being the relative proportions of primary and secondary contacts, the figures tend to give added support to the findings of earlier British Cooperative Clinical Group studies which suggested that the two major problems of gonorrhoea in West Indian males and predominantly United Kingdom-born females are not directly associated. There is certainly no evidence to support an association.

Efficacy of Contact-tracing of Male Cases: By Racial Groups.—Of the total numbers of males with gonorrhoea attending the clinics concerned in England and Wales, 25.6 per cent. were West Indians, 27.1 per cent. were other immigrants, and 47.3 per cent. were born in the United Kingdom. The ratio of the numbers of male cases in these three groups to the female contacts of all racial groups seen in the same clinics are shown in Table XIX.

Overall only one female contact was seen for every 5.8 males with gonorrhoea (17.4 per cent.). Best results were noted in those born in the United Kingdom (one female for 4.5 males or 22.4 per cent.). Of the West Indians, on the other hand, there was one female contact per 6.3 males (15.7 per cent.), while with other immigrants the ratio was longer still, female contacts being seen in only 10 per cent. Contact-tracing by contact slip, therefore, in addition to its inherent limitations, provides noticeably worse results in immigrant groups than in those born in the United Kingdom, although the potential numbers of secondary contacts are likely to be less in the immigrant groups. Better results were obtained in United Kingdom-born males and West Indians than in the case of other immigrants, doubtless due to the fact that in general both groups have a more settled position in this country, while under "other

TABLE XIX
RATIO OF CASES OF GONORRHOEA IN MALES BY RACIAL GROUPS TO THEIR FEMALE CONTACTS SEEN IN SAME CLINICS

	West Indians	Other Immigrants	UK-born	Total
No. Males with Gonorrhoea	6,024	6,385	11,160	23,569
	(25.6 per cent.)	(27.1 per cent.)	(47.3 per cent.)	(100.0 per cent.)
Total Female Contacts (All Groups) ..	955	640	2,498	4,093
Ratio Males with Gonorrhoea to Female Contacts	6.3:1	10.0:1	4.5:1	5.8:1
Per cent.	15.9	10.0	22.4	17.4

immigrants" are included numerous temporary travellers.

The total numbers of male cases with gonorrhoea per female contact are calculated according to the racial groups of both sexes in Table XX.

The numbers of West Indian females consorting with West Indians seen represented 7.8 per cent. of the total numbers of male West Indians, while those consorting with other immigrants and UK-born persons represented only 0.2 and 0.1 per cent. of the respective male totals.

The numbers of other immigrant females seen who had consorted with other immigrant males represented 4.0 per cent. of the total numbers of male other immigrants, while those consorting with West Indians and UK-born persons each represented only 1.0 per cent. of the respective male totals.

The numbers of United Kingdom-born females seen who had consorted with UK-born males, on the other hand, comprised no less than 21.3 per cent. of the total numbers of United Kingdom-born males, while those consorting with West Indians and other immigrants comprised 7.1 and 5.8 per cent. of the respective male totals in the same clinics.

Efficacy of Contact Tracing of Male Cases: By Age Groups.—In Table XXI the total numbers of male cases with gonorrhoea seen in the clinics per female contact are calculated by age groups of the female and race group of the male.

Teenage contacts seen represented 4.0 per cent. of the total numbers of males attending the clinics but 5.7 per cent. of United Kingdom-born males. Teenage contacts were seen in only 2.6 per cent. of West

TABLE XX
MALE CASES ATTENDING SAME CLINICS PER FEMALE CONTACT BY COUNTRY OF ORIGIN

	Referred By			
	West Indian Males	Other Immigrant Males	UK-born Males	Total
Total Male Cases in Clinics	6,024 (25.6 per cent.)	6,385 (27.1 per cent.)	11,160 (47.3 per cent.)	23,569 (100.0 per cent.)
West Indian Females	469	13	13	495
Male Cases per Female Contact	12.8	491.2	858.5	47.6
Per cent.	7.8	0.2	0.1	2.1
Other Immigrant Females	59	259	109	427
Male Cases per Female Contact	102.1	24.7	102.4	55.2
Per cent.	1.0	4.0	1.0	1.8
UK-born Females	427	368	2,376	3,171
Male Cases per Female Contact	14.1	17.4	4.7	7.7
Per cent.	7.1	5.8	21.3	13.5
Totals	955	640	2,498	4,093
Male Cases per Female Contact	6.3	10.0	4.5	5.8
Per cent.	15.9	10.0	22.4	17.4

TABLE XXI
MALE CASES BY RACE GROUP PER FEMALE CONTACT BY AGE GROUP
(England and Wales only)

	Referred By			
	West Indian Males	Other Immigrant Males	UK-born Males	Total
Total Males in Same Clinics	6,024 (25.6 per cent.)	6,385 (27.1 per cent.)	11,160 (47.3 per cent.)	23,569 (100.0 per cent.)
Females 15-19 Years	156	150	631	937
Male Cases per Female Contact	38.6	42.6	17.7	25.2
Per cent.	2.6	2.3	5.7	4.0
Females 20-24 years	389	243	857	1,489
Male Cases per Female Contact	15.5	26.4	13.0	15.8
Per cent.	6.5	3.8	7.7	6.3
Others	410	247	1,010	1,667
Male Cases per Female Contact	14.7	25.9	11.0	14.1
Per cent.	6.8	3.9	9.0	7.1
Totals	955	640	2,498	4,093
Male Cases per Female Contact	6.3	10.0	4.5	5.8
Per cent.	15.9	10.0	22.4	17.4

Indian and 2.3 per cent. of other immigrant males with gonorrhoea attending the same clinics. These figures provide further indication of the less obvious association between immigrants and teenagers than between teenagers and males born in the United Kingdom.

Summary and Conclusions

- (1) Data are presented of 4,093 female contacts attending 127 clinics in England and Wales and 104 others attending four clinics in Scotland in 1963 as a result of contact-slip or other like methods. In the clinics concerned in England and Wales were treated 84.8 per cent. of the national total numbers of cases of gonorrhoea reported during the year.
- (2) Overall, in only 17.4 per cent. of males with gonorrhoea were female contacts reported as having attended the same clinic, the figure being higher (26.9 to 28.4 per cent.) in towns and cities with populations of under 100,000 and lowest in London (12.6 per cent.). These figures add further emphasis to the known limitations of the contact-slip method.
- (3) The female contacts secured comprised a greater proportion of the known gonorrhoea in females in the same clinics in the smaller towns and cities and in Scotland than in London and the larger cities.
- (4) 495 (12.1 per cent.) of the female contacts were West Indian females. Of these no less than 94.7 per cent. were referred by West Indian males and only 13 each (2.6 per cent.) by other immigrants or those born in the United Kingdom.
- (5) 427 (10.4 per cent.) of the female contacts were other immigrant females. Of these 60.7 per cent. were referred by other immigrant males, 25.5 per cent. by UK-born males, and 13.8 per cent. by West Indian males.
- (6) No less than 3,171 (77.5 per cent.) of the female contacts were born in the United Kingdom. Three-quarters of these (74.9 per cent.) were referred by United Kingdom-born males, 13.5 per cent. by West Indians, and 11.6 per cent. by other immigrant males.
- (7) Of the 955 referring West Indian males, the female contacts were West Indians in 49.1 per cent., United Kingdom-born in 44.7 per cent., and other immigrants in 6.2 per cent.
- (8) Of the 640 other immigrant referring males, the female contact was UK-born in 57.5 per cent., other immigrant female in 40.5 per cent., and West Indian in only 2.0 per cent.
- (9) Of the 2,498 United Kingdom-born referring males, the female contact was also United Kingdom-born in no less than 95.1 per cent., was other immigrant female in only 4.4 per cent., and a West Indian female in a mere 0.5 per cent.
- (10) The tendency for like racial groups to associate with like was thus noted in respect of 95.1 per cent. of UK-born males and 94.7 per cent. of West Indian females. With UK-born and other immigrant females the respective figures were 74.9 and 60.7 per cent., while the lowest figures (49.1 and 40.5 per cent. respectively) were noted for West Indian and other immigrant males.
- (11) Data are given to indicate that the contact slip method of contact investigation is most successful in respect of males born in the United Kingdom and least successful in other immigrants. Of the total numbers of cases of gonorrhoea seen in the clinics in question female contacts were obtained in 22.4 per cent. of United Kingdom-born males, 15.9 per cent. of male West Indians, and in only 10.0 per cent. of male other immigrants.
- (12) Teenagers of 15 to 19 years represented 22.9 per cent. of the total numbers of female contacts, the proportions being lowest in London and the larger cities where the numbers of West Indians were highest. Of these teenagers 67.3 per cent. were referred by UK-born males (who comprised only 47.3 per cent. of the total numbers), 16.7 per cent. by West Indian males, and 16.0 per cent. by other immigrants.
- (13) The teenagers of 15 to 19 years comprised 25.3 per cent. of the contacts of United Kingdom-born males, 23.4 per cent. of the contacts of other immigrants, and only 16.3 per cent. of those of West Indian males. Moreover, the percentage of female teenagers of the total numbers of male cases attending the clinics was only 2.6 and 2.3 per cent. for West Indian and other immigrant males compared with 5.7 per cent. for UK-born males. Within the limitations of the data, particularly in regard to the unknown proportion of secondary contacts and sources of infection, there was thus no evidence to suggest a direct association between the two major problems of gonorrhoea in the predominantly United Kingdom-born females and in West Indian males.

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ANNEX

List of Participating Clinics

27 clinics in 27 towns or cities of under 50,000 population
 (total population, 732,953)

Ashford; Bangor; Barnstaple; Barry; Boston; Bridgwater; Canterbury; Dover; Durham; Goole; Grantham; Hitchin; Kendal; Kidderminster; Lancaster; Llandudno; Loughborough; Macclesfield; Pontypridd; Saint Asaph; Skegness; Tunbridge Wells; Whitehaven; Winchester; Windsor; Workington; Yeovil.

34 clinics in 36 towns or cities: 50,000–100,000 population
 (total population, 2,489,235)

Ashton-under-Lyme; Barnsley; Barrow; Bath; Burnley; Bury; Carlisle; Chatham; Cheltenham; Chester; Chesterfield; Crewe; Darlington; Dewsbury; Doncaster; Dudley; Gillingham; Halifax; Harrogate; Keighley; Lincoln; Merthyr Tydfil; North Shields; Port Talbot; Rochdale; Rochester; Rotherham; Southport; Stockton; Uxbridge; Wakefield; Warrington; Watford; West Hartlepool; Worcester; Worthing.

37 clinics in 35 towns or cities: 100,000–500,000 population
 (total population, 6,724,413)

Birkenhead; Blackburn; Blackpool; Bolton; Bournemouth; Bradford; Brighton; Bristol; Cardiff; Coventry; Derby; Huddersfield; Hull; Leicester; Middlesbrough; Newcastle; Newport, Mon.; Northampton; Norwich; Nottingham; Oldham; Oxford; Plymouth; Portsmouth; Preston; Sheffield (2 clinics); Southampton; South Shields; Stockport; Stoke-on-Trent; St. Helens; Sunderland; Swansea (2 clinics); Wolverhampton; York.

Eight clinics in four cities: 500,000 plus population (total population, 3,025,139)

Birmingham; Leeds; Liverpool (4 clinics); Manchester (2 clinics).

London: 21 clinics (population, 8,171,902)

Albert Dock; Central Middlesex; Croydon; Guy's; Miller; Prince of Wales; Queen Mary's, Stratford; Royal Free; Royal Northern; St. Bart's; St. George's; St. Helier, Carshalton; St. John's, Lewisham; St. Mary's; St. Paul's, Endell St.; St. Thomas's; Seamen's Hospital, Greenwich; South London Hospital for Women; West London; West Middlesex; Whitechapel Clinic, London Hospital.

Scotland: Four clinics in six towns or cities of total population 536,342

Aberdeen; Dumfries; Dundee; Dunfermline; Kirkcaldy; Perth.

Groupeement d'après l'âge et la race, des "contacts" femelles de patients mâles atteints de gonococcie.

RÉSUMÉ

- (1) On présente 4.093 observations de "contacts femelles" suivies dans 127 dispensaires d'Angleterre et du Pays de Galles et 104 autres suivies en Écosse en 1963 grâce à la méthode dite "contact slip" ou grâce à des méthodes semblables. Dans les dispensaires d'Angleterre et du pays de Galles furent traités 84,8% du total des cas nationaux de gonococcie déclarés dans l'année.
- (2) On rapporte qu'en tout dans seulement 17,4% des cas de gonococcie mâles, les contacts femelles se firent soigner dans les mêmes dispensaires. (Ce chiffre était plus élevé 26,9 à 28,4% dans les villes et les cités de population au dessous de 100.000, qu'à Londres (12,6%). Ces chiffres renforcent un fait déjà connu, c'est à dire les limites de la méthode dite "contact slip".
- (3) En ce qui concerne les contacts femelles le pourcentage des gonococcies connues et traitées dans les dispensaires fut plus grand dans les petites villes et cités d'Angleterre et d'Écosse qu'à Londres et dans les grandes villes.
- (4) 495 (12,1%) des contacts femelles furent des antillaises. Parmi celles-ci non moins de 94,7% furent référées par des antillais, et seulement 2,6% par d'autres émigrants ou des habitants du Royaume-Uni.
- (5) 427 (10,4%) furent des femmes du référées par groupe "autres émigrants" dont 60,7% furent des hommes du même groupe 25,5% par des hommes du Royaume-Uni et 13,8% par des antillais.
- (6) Non moins de 3,171 (77,5%) des contacts femelles étaient nées dans le Royaume-Uni. Les trois quarts (74,9%) furent référées par des hommes du Royaume-Uni, 13,5% par des antillais, et 11,6% par d'autres émigrants.
- (7) Des contacts femelles référées par 955 antillais, 49,1% étaient antillaises, 44,7% nées dans le Royaume-Uni, et 6,2% du groupe des autres émigrants.
- (8) Des contacts femelles référées par 640 mâles du groupe "autres émigrants" 57,5% étaient nées dans le Royaume-Uni, 40,5% étaient des "autres émigrants", et 2% des antillaises.
- (9) Des contacts femelles référées par les 2,498 hommes du Royaume-Uni, pas moins de 95,1% étaient également nées dans le Royaume-Uni, 4,4% appartenaient au groupe autres émigrantes, et une seulement était antillaise 0,5%.
- (10) La tendance pour les groupes raciaux à s'associer entre eux fut notée dans une proportion de 95,1% d'hommes du Royaume-Uni et 94,7% de femmes antillaises. En ce qui concerne les femmes nées dans le Royaume-Uni et les femmes du groupe des "autres émigrants" le chiffre respectif

fut de 74,9% et 60,7% tandis qu'on nota des chiffres plus bas (49,1 et 40,5%) pour les antillais et les hommes du groupe "autres émigrants".

- (11) L'observation prouve que la méthode dite "contact-slip" est plus efficace dans le cas des hommes nés dans le Royaume-Uni que dans le cas des autres émigrants. Parmi le total des cas de gonococcie vus dans les dispensaires les contacts femelles furent obtenus pour 22,1% des hommes du Royaume-Uni, 15,9% des antillais, et 10% des autres émigrants.
- (12) Les "teenagers" de 15 à 19 ans représentèrent 22,9% du total des contacts femelles, le pourcentage étant plus bas à Londres et dans le grandes villes où le nombre d'antillais fut plus grand. Parmi ces teenagers 67,3 furent referées par des mâles du Royaume-Uni (47,3% du chiffre

total) 16,7% par des antillais, et 16% par d'autres émigrants.

- (13) Les teenagers de 15 à 19 ans représentèrent 25,3% des contacts femelles du Royaume-Uni. 23,4% des contacts des autres émigrants et 16,3% seulement des contacts des antillais.

De plus le pourcentage des filles teenagers comparé au chiffre total des cas mâles venant au dispensaire fut de 2,6 et 2,3% pour les antillais et les autres émigrants mâles comparés à 5,7% pour les mâles du Royaume-Uni. Compte-tenu des limites des observations en particulier en ce qui concerne la proportion inconnue des contacts secondaires il n'y eut pas de preuve d'une relation directe entre les deux problèmes majeurs de la gonococcie, c'est à dire sa prédominance parmi les femmes du Royaume-Uni et les antillais.